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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/446,752	05/30/2000	JURGEN KOCKMANN	P99.2691	2844
29177	7590	02/26/2004	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			HOM, SHICK C	
			ART UNIT	PAPER NUMBER
			2666	
DATE MAILED: 02/26/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/446,752	KOCKMANN ET AL.	
Examiner	<b>Art Unit</b>		
Shick C Hom	2666		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### **Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on 4/7/00, 5/30/00, 9/1/00.

2a)  This action is **FINAL**.                            2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## **Disposition of Claims**

4)  Claim(s) 1-28 is/are pending in the application.  
4a) Of the above claim(s) 1-14 is/are withdrawn from consideration.  
5)  Claim(s) \_\_\_\_\_ is/are allowed.  
6)  Claim(s) 15-18 and 22-25 is/are rejected.  
7)  Claim(s) 19-21, 26-28 is/are objected to.  
8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892) 4)  Interview Summary (PTO-413)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948) Paper No(s)/Mail Date. \_\_\_\_ .  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5. 5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_ .

**DETAILED ACTION**

***Oath/Declaration***

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:  
Non-initialed and/or non-dated alterations have been made to the oath or declaration. See 37 CFR 1.52(c).

***Specification***

2. The spacing of the lines of the specification is such as to make reading and entry of amendments difficult. New application papers with lines double spaced on good quality paper are required.

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

***Claim Objections***

4. Claims 15-28 are objected to because of the following informalities: In claim 22 lines 11-12, the words "a frequency-division multiplex method" and "a time-division multiplex method," seem to refer back to "a frequency-division multiplex method" and "a time-division multiplex method" recited in claim 15 lines 4-5. If this is true, it is suggested changing "a frequency-division multiplex method" and "a time-division multiplex method" to ---the frequency-division multiplex method--- and ---the time-division multiplex method data---. Likewise, in claim 22 lines 13, 14, 15, and 16 change "a carrier frequency," "a GMSK modulation method," "a predetermined time period," and "a transmission frame" to ---the carrier frequency---, ---the GMSK modulation method---, ---the predetermined time period---, and ---the transmission frame---. In claim 25 lines 3-4 change "a time slot" and "a transmission frame" to ---the time slot--- and ---the transmission frame---. In claim 28 lines 2 and 4 change "a carrier frequency" and "an active time slot" to ---the carrier frequency--- and ---the active time slot---, respectively. In claim 18 lines 2-3 and 3-4 change "a time slot" and "a transmission frame" to ---the time slot--- and ---the transmission frame---. In claim 21 line 1 change "a carrier frequency" to ---the carrier frequency---. In claim 15

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line 6 and claim 22 line 7 delete "GMSK" and insert ---Gaussian Minimum Shift Keying GMSK---, for clarity. In claim 17 line 2 delete "Ghz" and insert ---GHz---. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35

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U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 15-18 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bud et al. (5,598,407) in view of Ketseoglou et al. (6,130,886).

Regarding claim 15:

Bud et al. disclose the method for wire-free transmission of data, said method comprising the steps of: transmitting data in time slots using a frequency-division multiplex method, a time-division multiplex method, and with time division duplexing (see col. 1 lines 50-52 and col. 4 lines 19-22), a transmission frame having time slots; modulating said data onto a carrier frequency using a GMSK modulation method (see col. 4 lines 14-18); and changing said carrier frequency after a predetermined time period (see col. 8 lines 14-27).

Regarding claim 22:

Bud et al. disclose the transmission system for wire-free transmission of data, said transmission system comprising: a fixed station (see col. 3 lines 6-10) having a first transmitter for transmitting data in time slots using a frequency-division multiplex method, a time-division multiplex method, and with time division duplexing, and for modulating said data onto a

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carrier frequency (see col. 1 lines 50-52 and col. 4 lines 19-22), and for demodulating said data using a GMSK modulation method (see col. 4 lines 14-18 and col. 3 lines 23-30), and for changing said carrier frequency after a predetermined time period, and transmitted time slots being a transmission frame (see col. 8 lines 14-27); and at least one mobile station (see col. 3 lines 6-10) having a second transmitter for transmitting data in time slots using a frequency-division multiplex method, a time-division multiplex method, and with time division duplexing (see col. 1 lines 50-52 and col. 4 lines 19-22), and for modulating said data onto a carrier frequency and for demodulating said data using a GMSK modulation method (see col. 4 lines 14-18 and col. 3 lines 23-30), and for changing said carrier frequency after a predetermined time period, and transmitted time slots being a transmission frame (see col. 8 lines 14-27).

Regarding claims 16 and 23:

Bud et al. disclose wherein between 80 and 100 carrier frequencies are used (see col. 8 lines 14-32).

Regarding claims 18 and 25:

Bud et al. disclose wherein said predetermined time period after which said carrier frequency is changed corresponds to one of a time slot, a transmission frame, and an integer multiple of

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one of a time slot and a transmission frame (see Fig. 3 and col. 4 lines 30-39).

For claims 15, 17, 22, and 24, Bud et al. disclose all the subject matter of the claimed invention with the exception of the transmission frame having 16 time slots as in claims 15, 22; and wherein said data is transmitted in a frequency band between 2.4 GHz and 2.4835 GHz as in claims 17, 24.

Ketseoglou et al. from the same or similar fields of endeavor teach that it is known to provide the transmission frame having 16 time slots (see col. 8 lines 54-60) and wherein said data is transmitted in a frequency band between 2.4 GHz and 2.4835 GHz (see col. 1 line 58 to col. 2 line 3).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the transmission frame having 16 time slots and wherein said data is transmitted in a frequency band between 2.4 GHz and 2.4835 GHz as taught by Ketseoglou et al. in the communications method of Bud et al. The transmission frame having 16 time slots can be implemented by dividing the frame of Bud et al. into 16 instead of 24 time slots and wherein said data is transmitted in a frequency band between 2.4 GHz and 2.4835 GHz. The motivation for using transmission frame having 16 time slots and wherein said data is transmitted in a frequency band between

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2.4 GHz and 2.4835 GHz as taught by Ketseoglou et al. in the communication method of Bud et al. being that it provides the desirable add feature of providing the coexistence of a spread spectrum TDMA communication system with a GSM communication system.

***Allowable Subject Matter***

8. Claims 19-21 and 26-28 would be allowable if rewritten to overcome the objections and to include all of the limitations of the base claim and any intervening claims.

***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kranz et al. disclose a digital telecommunications system. Van der Tuijn disclose communication systems, communication methods and a method of communicating data within a DECT communication system.

Dent et al. disclose diversity-oriented channel allocation in a mobile communications system.

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10. Any response to this nonfinal action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (2600 Receptionist at (703) 305-4750).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick Hom whose telephone number is (703) 305-4742. The examiner's regular work schedule is Monday to Friday from 8:00 am to 5:30 pm EST and out of office on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao, can be reached at (703) 308-5463.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the

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Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



DANG TON  
PRIMARY EXAMINER

SH

February 20, 2004